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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/900,008	07/09/2001	Yoshiyuki Shino	35.C15536	4382

5514 7590 11/06/2002

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EXAMINER

DICUS, TAMRA

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 11/06/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/900,008	Applicant(s) SHINO ET AL.	
	Examiner Tamra L. Dicus	Art Unit 1774	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-8 drawn to a non-contact recording medium classified in class 428, subclass 195.
 - II. Claims 9-13 drawn to an image forming process classified in class 427, subclass 1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case ink may be applied by a laser system.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Jean Dudek on 9/18/02 a provisional election was made with traverse to prosecute the invention of I, claims 1-9. Affirmation of this election must be made by applicant in replying to this Office action. Claims 9-13 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "non-contact" is not clear. Further, such term is not specifically defined in the specification. In addition, the term "non-contact state" is not clear. It is unclear how information is read in such a manner.

9. Claims 1, 2, 4, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "ink/circuit-part" is not clear. Further, such term is confusing as it is unclear if this term is meant in the alternative or as an additional limitation between the two options.

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10. Claim 6^{and 8} is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what specific polymer is used as the sealant.

11. The term "large" in claim 8 is a relative term which renders the claim indefinite. The term "large" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

12. The term "small" in claim 8 is a relative term which renders the claim indefinite. The term "small" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

14. Claim 1 and 2 is rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,250,555 to Inamoto.

Inamoto teaches a card with an IC chip built into the card, where information recorded on

IC cards (non-contact information recording medium) by an ink jet recorder that comprises an IC chip (equivalent to electronic information storing circuit part) having a resin sealant (ink/circuit-part barrier) over a base of paper or polymer, and an image formed on an ink-receiving layer over the top of the IC card. Inamoto explains that his card avoids printing over the IC portion. This solution is synonymous to the problem claimed, "circuit part undergoes...". See col. 3, lines 15-25, lines 60-64, col. 6, lines 50-68, col. 7, lines 1-15 and lines 30-45, and Example 1.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,398,109 to Ohki in view of USPN 6,250,555 to Inamoto, and USPN 5,313,365 to Pennisi et al.

Ohki teaches a non-contact type IC card where reading of the IC card is described at col. 5, lines 1-5. This reading style is equivalent to reading in a non-contact state.

Ohki does not describe a barrier or image. However, Inamoto teaches a card with an IC chip built into the card, where information recorded on IC cards (non-contact information recording medium) by an ink jet recorder that comprises an IC chip (equivalent to electronic information storing circuit part) having a resin sealant (ink/circuit-part barrier) over a base of paper or polymer, and an image formed on an ink-receiving layer over the top of the IC card.

Inamoto explains that his card avoids printing over the IC portion. See col. 3, lines 15-25, lines 60-64, col. 6, lines 50-68, col. 7, lines 1-15 and lines 30-45, and Example 1. Hence it would have been obvious to one of ordinary skill in the art to modify the non-contact type IC card to provide the structure as claimed in order to produce a card that may be printed by ink jet recording as taught by Inamoto.

Ohki does not disclose the problem where the "circuit part undergoes...". Ohki does not disclose an air permeability property or specifically defining the resin used as a silicone-modified organic polymer as claimed in 3-6. However, Pennisi teaches an electronic device such as an encapsulated in epoxy or silicone-modified polymers. Pennisi explains it is known to use such a coated device in smart credit cards to solve various problems addressing protecting an IC. While neither Ohki nor Pennisi disclose the Mw of the silicone-modified organic polymer, Pennisi teaches using the same materials in the same way, which proves its inherency to the Mw and air permeability property of claim 3. See col. 1, lines 10-35 and lines 65-68. Pennisi and Ohki are analogous art because they both are involved in the same field of endeavor, namely electronic technology. Hence it would have been obvious to one of ordinary skill in the art to modify the card of Inamoto to further include epoxy or silicone-modified polymers for the reason of preventing stress, protecting it from mechanical shock, moisture, chemicals, and protect it from corrosion as taught by Pennisi at col. 1, lines 34-50.

Regarding claim 8, the limitation "is formed by laminating", is a process limitation in a product claim. Process notwithstanding. Product-by-process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. Patentability of an article depends on the article itself and not the method used to produce it (see MPEP 2113).

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Furthermore, the invention defined by a product-by-process invention is a product NOT a process. *In re Bridgeford*, 357 F. 2d 679. It is the patentability of the product claimed and NOT of the recited process steps which must be established. *In re Brown*, 459 F. 2d 531.

Further addressing claim 8, Inamoto teaches the absorbtivity of the ink-receiving layer may be adjusted by the use of an inorganic filler. Hence, it would have been obvious to one of ordinary skill in the art to provide a material effecting ink absorptivity since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art (*In re Boesch*, 617 F.2d 272), and further taught by Inamoto.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 6,239,483 to Usami et al. teaches a semiconductor device that is applied to a smart card. USPN 5,977,018 to Moreland teaches paper and ink using epoxy and silicone. USPN 5,786,626 to Brady et al. teaches a tag having an IC. USPN 6,106,147 to Silverbrook teaches an information storage apparatus applied to cards. USPN 5,254,525 to Nakajima et al. teaches a thermal transfer image recording material for ID cards teaching using silicon modified polymer such as polyester.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is (703) 305-3809. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 746-8329 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



November 1, 2002

CYNTHIA H. KELLY
SUPERVISOR, PATENT EXAMINER
TECHNICAL STAFF

